



**Section 10**

**Crew Training**

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**NASA Ames Research Center**



## ARC Crew Training



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### CREW TRAINING APPROACH

- **Crew Training will support all aspects of the FRESH-02 experiment, hardware and science familiarization.**
- **ESA is responsible for crew training of the Biopack experiment.**
- **KSC is responsible for crew training MFA/Biotube and BRIC experiments.**



## ARC Crew Training



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### CREW TRAINING Major Milestones FRESH-02

- **Training Questionnaire Delivered to SPACEHAB** **12/2/99**
- **Training Questionnaire updated, submitted to MMO** **3/31/00**
- **Draft FOs submitted to MMO** **3/31/00**
- **ARC Training Readiness Review (ARC requirement)** **6/26/00\***
- **Familiarization Briefing Dry Run w/SPACEHAB at ARC** **7/10/00\*^**
- **Submit Crew Familiarization Material to SPACEHAB** **7/19/00\***
- **Crew Training hardware pre-ship review (ARC requirement)** **7/19/00\***
- **Crew Familiarization and Hands On Training at JSC** **7/31/00\***
- **Refresher Training at SPPF** **11/27/00\***

**\*Based on STS-107 Preliminary Training Schedule Rev. B (Launch 2-22-01)**

**^Requirement established at SPACEHAB Kick-off Meeting 1/19/00**



## ARC Crew Training



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### CREW TRAINING Major Milestones FRESH-02 (con't)

- **Nominal / Malfunction Procedures**
  - **Draft** **5/12/00\***
  - **Project Review** **5/19/00\***
  - **Incorporate Redlines** **5/26/00\***
  - **Submit Preliminary to SPACEHAB** **5/30/00\***
  - **Submit to SPACEHAB for Basic Release** **6/13/00\***
  - **Validate (training hardware available)** **8/1/00\***
  - **Submit to SPACEHAB for Final Release (L-1 month)** **1/22/01\***

**\*Based on STS-107 Preliminary Training Schedule Rev. B (Launch 2-22-01)**



## ARC Crew Training



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### CREW TRAINING CURRICULUM FOR FLIGHT CREW

- **FRESH-02**
  - **Science Familiarization Training** **1.0 hr**
  - **Animal Health Observations** **1.0 hr**
  - **AEM Hardware Familiarization** **0.3 hr**
  - **AEM CO<sub>2</sub> System Familiarization** **0.3 hr**
  - **IRU Hardware Familiarization** **0.3 hr**
  - **Nominal Operations Training** **1.5 hr**
  - **Malfunction Training** **1.5 hr**

\* As submitted to SPACEHAB in Experiment Training Requirements Questionnaire



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### CREW TRAINING

- **IN-FLIGHT NOMINAL OPERATIONS FOR FRESH-02**
  - **AEM Hardware check**
  - **Animal health observations**
  - **AEM water refill using IRU**



## ARC Crew Training



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### CREW TRAINING HARDWARE

	<u>QUANTITY</u>
• AEM Training Unit	1
• AEM Muffler	1
• AEM CO <sub>2</sub> System (ACOS)	1
• IRU Training Unit	1
• IRU Accessories	1
• SORG mockup	1
• SPACEHAB Modified Locker (SPACEHAB Provided)	1